

Encounter Summary

Documentation Notes

Russell L. Chin, MD

Attending

Mon Aug 19, 2013 7:41 PM
Electronically Signed

Chief Complaint

1. Follow Up

History of Present Illness

Pt returned with his wife to review results.
Has been on vacation. Also got ESI and says walking is better and energy improved.
No other interval changes.

History:

54 y/o right-handed man with history of:

- Lumbar fusion (L4-S1) in 1980
- Hemilaminectomy (left L3-S1) in 1991 with resolution of left buttock/thigh pain. Would have occasional low back pain, managed with exercise (biking)
- Left knee surgery (1995)
- Mild asthma/hayfever

November 2012: with prolonged sitting developed low back pain and dull pain in right buttock. Numbness in bilateral feet/distal legs (to mid-calf) after prolonged sitting, with more persistent symptoms in the right plantar surface.

Changed to standing desk. Was considering surgery (foraminotomies).

April 2013: noted some slurred speech one afternoon with another later occurrence.
Also started to notice increased fatigue particularly in the evening.

May 2013: awoke with tongue numbness (had eaten celery), labored breathing. Took Benadryl and went to ER. Took prednisone for a few days--this seemed to help speech. Allergy testing non-diagnostic.

June 2013: noting muscle twitching in bilateral thighs>legs and severe cramps in legs/feet (not occurring immediately after exercise) and worsening of slurred speech and fatigue, particularly in the evenings.

6/20/13: Legs felt extremely unsteady and tired.

July 2013: fasciculations and leg cramps decreased; now minor. Felt stronger and was able to play basketball. Slurred speech not significantly worse, but can occur throughout day (not just in evening).

No external skin changes or changes in muscle bulk.

No fever/chills, weight changes.

Notices some swallowing issues ("things don't go down as smoothly").

No diplopia, visual changes or headaches.

No upper extremity symptoms.

No bowel/bladder irregularities.

Treatment: Epidural injections X 3 (Dr. Douglas Schottenstein) with dramatic improvement after 2nd injection (4/2013). Felt less fatigue.

Family history: Father developed "dementia" in late 60s; hydrocephalus later diagnosed->shunt w/o improvement. Deceased at age 92.

Father's fraternal twin: dementia? Died around age 90

Past Medical History

None

Past Surgical History

1. Spine Surgery

1980: fusion L4-S1; 1991: hemilaminectomy from L3-S1

Social History

Tobacco Use Never

Alcohol Use Yes; (1-2 drinks (beer/wine) per day)

Drug Use No

Socioeconomic History

Marital Status MARRIED

Family History

None

Medications (Reviewed in this Encounter by: Russell L. Chin, MD)

Name	Sig	Status
1. Calcium-Magnesium Or	None Entered	
2. Cholecalciferol (vitamin D) 2000 Units Cap	1 Capsule Daily	
3. Cyanocobalamin (b-12) 2000 Mcg Tab	1 Tablet Daily	
4. Fish Oil	None Entered	
5. Folic Acid Or	None Entered	
6. lisdexamfetamine (vyvanse) 40 Mg Cap	1 Capsule Daily	
7. Prenatal Vit-Fe Fumarate-Fa (m-Vit Or)	once daily	

Allergies

No Known Allergies.

Review of Systems**Constitutional:** Normal.**Eyes:** Normal.**ENMT:** Normal.**Cardiovascular:** Normal.**Respiratory:** Normal.**GI:** Normal.**Genitourinary:** Normal.**Integumentary:** Normal.**Endocrine:** Normal.**Hem/Lymph:** Normal.**Allergic/Imm:** Normal.**Psychiatric:** Normal.**Physical Exam**

General Appearance: no apparent distress, well nourished, well developed.

Head: Normal.

Conjunctiva and lids: normal; Pupils: PERRL; Extra-ocular muscles: intact; Sclerae: normal; Fundi: normal;

Visual acuity: grossly intact.

External inspection of ears and nose: normal; Hearing assessment: grossly intact; Nasal mucosa, septum and turbinates: normal; Lips, teeth and gums: normal; Oropharynx exam: oral pharynx clear, without erythema or exudates.

General neck exam: normal; Carotids: normal.

Respiratory effort: normal; Auscultation of lungs: lungs clear.

Auscultation of heart: RRR, no m/r/g; Pulses: normal.

Joints, bones, muscles of Spine: normal.

Digits: normal; Upper extremities: normal; Lower extremities: normal, no edema.

Inspection of skin and subcutaneous tissue: normal; Palpation of skin and subcutaneous tissue: normal.

Orientation: alert, oriented x 3; Affect: normal; Mood: euthymic; Memory: Normal; Judgment/insight: Normal.

Cranial nerves: 1st Cranial Nerve not tested, 2nd Cranial Nerve intact, 3rd, 4th, 6th Cranial Nerves intact, 5th Cranial Nerve intact, 7th Cranial Nerve intact, 8th Cranial Nerve intact, 11th Cranial Nerve intact, 12th Cranial Nerve intact.

Mildly decreased palate elevation; rare fasciculation noted in tongue.

Motor exam: random, intermittent fasciculations noted in thighs and calves. Muscle tone in upper and lower lower extremities was normal. Strength full in all 4 extremities. Able to walk on heels or toes, rise from a seated position without using his arms, and able to rise from a kneeling position with either leg.

Sensation exam: Sensation to vibration, light touch, pinprick and temperature were intact. Sensation to joint position intact at the large toes.

Reflexes: Deep tendon reflexes were 1+ at the right biceps and bilateral brachioradialis; 2+ at the left biceps, bilateral triceps, knees and ankles. Plantar reflexes were flexor bilaterally. There was no Hoffman sign. There were crossed adductor reflexes.

Coordination: Normal; normal finger-to-nose testing. Negative Romberg. Gait: stable. Normal tandem walk.

Data Review

EMG/NCS

12/2012: reported to show chronic denervation from C6-7 radiculopathy; acute and chronic denervation from bilateral C4-5 radiculopathy; chronic denervation from bilateral S1 radiculopathy; acute and chronic denervation from bilateral L4-5 radiculopathy.

8/2/13: study of the legs and right arm showed fasciculation potentials (legs, right first dorsal interosseous, tongue, thoracic paraspinal muscles) with minimal chronic denervation/reinnervation findings. Nerve conduction studies of the legs and right arm were essentially within normal limits.

MRI studies:

Brain (4/9/2013) w/o gadolinium:

Cervical w/o contrast (12/2012)

Lumbosacral spine +/- gadolinium (12/22/12)

CT Thoracic spine (1/2/13):

CT myelogram (1/2013), personally reviewed: fusion well-consolidated, severe right L5-S1 foraminal stenosis, severe left L5-S1 foraminal stenosis.

Lab studies:

The following studies from 5/2013 were normal: basic chemistry, CBC, ESR, B12, folate, ANA, Lyme ELISA, HCV antibodies, homocysteine level.

Studies from 8/2/13: B6 was 178 (elevated). Ceruloplasmin was mildly low at 14 (normal=17-54 mg/dL) with

normal copper level.

The following studies were normal: TSH, quantitative immunoglobulins, serum immunofixation electrophoresis, GM1, GD1a, GD1b, GQ1b, SS-A, SS-B, MAG antibodies, rheumatoid factor.

EEG (4/13): negative

Assessment and Plan

54 y/o right-handed man with history of:

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- Mild asthma/hayfever

Reporting some back pain, right buttock pain, numbness in bilateral feet/distal legs beginning in 11/12. Also some fluctuating slurred speech beginning in 4/2013, episode of tongue numbness in May 2013, muscle twitching/cramps beginning in June 2013.

Exam notable for mild dysarthria, fasciculations in tongue and bilateral thighs/legs, preserved reflexes with crossed adductor reflexes and preserved strength by manual muscle testing. EMG/NCS showing diffuse fasciculation potentials (legs, right hand, tongue, thoracic paraspinal musculature).

Had long discussion regarding these findings and the likelihood of motor neuron disease (specifically amyotrophic lateral sclerosis) plus superimposed lumbosacral radiculopathy (bilateral L5-S1) given his response to recent ESI.

Low suspicion for myasthenia gravis but will complete studies (somehow not performed with last blood draw). Pt wondering how to explain transient episode of tongue numbness that responded to prednisone.

Recommended 2nd opinion/further evaluation and treatment by Dr. Hiroshi Mitsumoto at the ALS/MDA Center at Columbia University. Gave referral information.

Also spoke with pt's psychiatrist (Dr. Spierer) who is actively involved and recently prescribed clonazepam for anxiety; is considering Prozac also for mood.

Diagnosis

1. Dysarthria [784.51] - Primary Dx
2. Fasciculations [781.0s]
3. Lumbosacral Radiculopathy [724.4g]

Order Summary

Orders

1. Acetylcholine Recep. Bind. AB [83519]
2. Acetylcholine Receptor Blocking AB [83519]
3. Musk Antibody [83519]
4. Vitamin D,25-Oh:Tot,D3,D2 [82306]

Canceled Orders

1. Myasthenia Gravis Panel [01001]

Check-Out Note

55 minutes were spent with the pt; 100% time spent reviewing test results, discussing diagnostic work-up and

management, coordinating care, conferring with pt's psychiatrist.

Send Copy of Chart To

Vega, Damaris

Level of Service

OFFICE/OUTPT VISIT,EST,LEVL V [99215]

IDX Visit Number

19459989

Office Visit: Counseling more than 50% of appointment time for Established Patient: Visit Length: >40 minutes

PQRI Performance Measures

This is a no charge order, used only to report quality measures to the health plan provider

1036F, G8427, 3016F

Results

ACETYLCHOLINE RECEPTOR BINDING AB

Status: Final result MyChart: Not Released

	Value	Range
ACETYLCHOL RECEPTOR BINDING AB	0.0	0.0 - 0.4 nmol/L

Comments:

INTERPRETIVE INFORMATION: Acetylcholine Binding Ab Negative 0.0 - 0.4 nmol/L Positive 0.5 nmol/L or greater Approximately 85-90 percent of patients with myasthenia gravis (MG) express antibodies to the acetylcholine receptor (AChR), which can be divided into binding, blocking, and modulating antibodies. Binding antibody can activate complement and lead to loss of AChR. Blocking antibody may impair binding of acetylcholine to the receptor, leading to poor muscle contraction. Modulating antibody causes receptor endocytosis resulting in loss of AChR expression, which correlates most closely with clinical severity of disease. Approximately 10-15 percent of individuals with confirmed myasthenia gravis have no measurable binding, blocking, or modulating antibodies. Test developed and characteristics determined by ARUP Laboratories. See Compliance Statement B: aruplab.com/CS Performed by ARUP Laboratories, 500 Chipeta Way, SLC, UT 84108 800-522-2787 www.aruplab.com, Jerry W. Hussong, MD - Lab. Director

Resulting Agency

NEW YORK HOSPITAL LABORATORIES

Specimen Collected: 08/19/13
4:08 PM

Last Resulted: 08/21/13
11:03 PM



ACETYLCHOLINE RECEPTOR BLOCKING AB

Status: Final result MyChart: Not Released

	Value	Range
ACETYLCHOL RECEPTOR BLOCKING AB	0	0 - 15 %

Comments:

INTERPRETIVE INFORMATION: Acetylcholine Blocking Ab Negative 0-15 percent blocking Indeterminate 16-24 percent blocking Positive 25 percent or greater blocking Approximately 85-90 percent of patients with myasthenia gravis (MG) express antibodies to the acetylcholine receptor (AChR), which can be divided into binding, blocking, and modulating antibodies. Binding antibody can activate complement and lead to loss of AChR. Blocking antibody may impair binding of acetylcholine to the receptor, leading to poor muscle contraction. Modulating antibody causes receptor endocytosis resulting in loss of AChR expression, which correlates most closely with clinical severity of disease. Approximately 10-15 percent of individuals with confirmed myasthenia gravis have no measurable binding, blocking, or modulating antibodies. Test developed and characteristics determined by ARUP Laboratories. See Compliance Statement B: aruplab.com/CS Performed by ARUP Laboratories, 500 Chipeta Way, SLC, UT 84108 800-522-2787 www.aruplab.com, Jerry W. Hussong, MD - Lab. Director

Resulting Agency

NEW YORK HOSPITAL LABORATORIES

Specimen Collected: 08/19/13
4:08 PM

Last Resulted: 08/21/13
11:06 PM



VITAMIN D,25-OH:TOT,D3,D2

Status: Final result MyChart: Not Released

	Value	Range
VITAMIN D, 25-OH D2	<4.0	ng/mL
VITAMIN D, 25-OH D3	55.4	ng/mL
VITAMIN D,25-OH TOTAL	CannotCalculate	30.0 - 80.0 ng/mL

Comments:

Deficient: <20 ng/mL Insufficient: 20-29 ng/mL Optimum Level: 30-80 ng/mL Possible Toxicity: >150 ng/mL 25-OH Vitamin D3 levels represent endogenous production in the skin by UV-rays, animal sources of dietary vitamin D3 or supplementation with cholecalciferol. 25-OH Vitamin D2 represents plant based dietary sources or supplementation with ergocalciferol. The method does not detect the 3-epimer of 25-OH Vitamin D3.

Resulting Agency

NEW YORK HOSPITAL LABORATORIES

Specimen Collected: 08/19/13
4:08 PM

Last Resulted: 08/23/13
1:23 PM



Referring Physician Copy